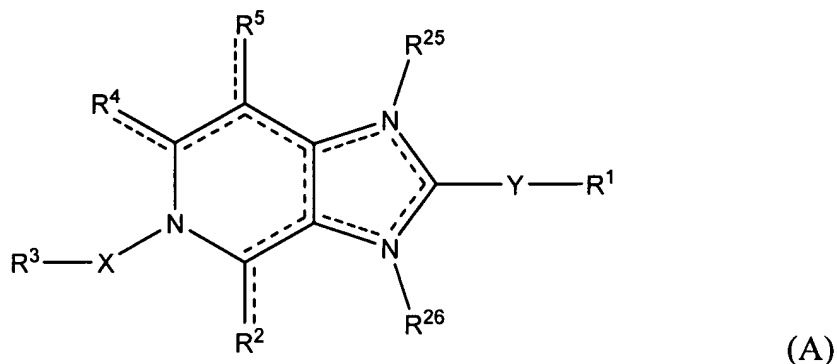


Amendments to the Claims

Claims 1-69 (Cancelled).

70. (New) A compound having the structural formula (A),



wherein:

- the dotted lines represent an optional double bond, provided that no two double bonds are adjacent to one another, and that the dotted lines represent at least 3, optionally 4 double bonds;
- R^1 is selected from the group consisting of hydrogen, aryl, heterocycle, C_{1-10} alkoxy, C_{1-10} thioalkyl, C_{1-10} alkyl-amino, C_{1-10} dialkylamino, C_{3-10} cycloalkyl, C_{4-10} cycloalkenyl, and C_{4-10} cycloalkynyl, wherein each are optionally substituted with one or more R^6 ;
- Y is selected from a single bond, O, $S(O)_m$, NR^{11} , C_{1-10} alkylene, C_{2-10} alkenylene, or C_{2-10} alkynylene, wherein each alkylene, alkenylene or alkynylene optionally includes 1 to 3 heteroatoms selected from O, S or N; provided that YR^1 is not hydrogen or C_{1-6} alkyl;
- R^2 and R^4 are independently selected from the group consisting of hydrogen, C_{1-18} alkyl, C_{2-18} alkenyl, C_{2-18} alkynyl, C_{1-18} alkoxy, C_{1-18} alkylthio, halogen, -OH, -CN, -NO₂, -NR⁷R⁸, haloalkyloxy, haloalkyl, -C(=O)R⁹, -C(=S)R⁹, -SH, aryl, aryloxy, arylthio, arylalkyl, C_{1-18} hydroxyalkyl, C_{3-10} cycloalkyl, C_{3-10} cycloalkyloxy, C_{3-10}

cycloalkylthio, C₃₋₁₀ cycloalkenyl, C₇₋₁₀ cycloalkynyl, or heterocycle, provided that when one of R²⁵ or R²⁶ is present, then either R² or R⁴ is selected from the group consisting of (=O), (=S), and =NR²⁷;

- X is selected from the group consisting of C₁.C₁₀ alkylene, C₂₋₁₀ alkenylene or C₂₋₁₀ alkynylene, where each optionally includes one or more heteroatoms selected from the group consisting of O, S, or N, provided any such heteroatom is not adjacent to the N in the imidazopyridyl ring;
- m is any integer from 0 to 2;
- R³ is a heterocycle substituted with one or more R¹⁷;
- R⁵ is selected from the group consisting of hydrogen, C₁₋₁₈ alkyl, C₂₋₁₈ alkenyl, C₂₋₁₈ alkynyl, C₁₋₁₈ alkoxy, C₁₋₁₈ alkylthio, halogen, -OH, -CN, -NO₂, -NR⁷R⁸, haloalkyloxy, haloalkyl, -C(=O)R⁹, -C(=O)OR⁹, -C(=S)R⁹, SH, aryl, aryloxy, arylthio, arylalkyl, C₁₋₁₈ hydroxyalkyl, C₃₋₁₀ cycloalkyl, C₃₋₁₀ cycloalkyloxy, C₃₋₁₀ cycloalkylthio, C₃₋₁₀ cycloalkenyl, C₇₋₁₀ cycloalkynyl, or heterocycle;
- each R⁶ is independently selected from the group consisting of hydrogen, C₁₋₁₈ alkyl, C₂₋₁₈ alkenyl, C₂₋₁₈ alkynyl, C₁₋₁₈ alkoxy, C₁₋₁₈ alkylthio, C₁₋₁₈ alkylsulfoxide, C₁₋₁₈ alkylsulfone, C₁₋₁₈ halo-alkyl, C₂₋₁₈ halo-alkenyl, C₂₋₁₈ halo-alkynyl, C₁₋₁₈ halo-alkoxy, C₁₋₁₈ halo-alkylthio, C₃₋₁₀ cycloalkyl, C₃₋₁₀ cycloalkenyl, C₇₋₁₀ cycloalkynyl, halogen, -OH, -CN, cyanoalkyl, -CO₂R¹⁸, -NO₂, -NR⁷R⁸, C₁₋₁₈ haloalkyl, -C(=O)R¹⁸, -C(=S)R¹⁸, -SH, aryl, aryloxy, arylthio, arylsulfoxide, arylsulfone, arylsulfonamide, aryl(C₁₋₁₈)alkyl, aryl(C₁₋₁₈)alkyloxy, aryl(C₁₋₁₈)alkylthio, heterocycle and C₁₋₁₈ hydroxyalkyl, where each is optionally substituted with one or more R¹⁹;
- R⁷ and R⁸ are independently selected from the group consisting of hydrogen, C₁₋₁₈ alkyl, C₁₋₁₈ alkenyl, aryl, C₃₋₁₀ cycloalkyl, C₄₋₁₀ cycloalkenyl, heterocycle, -C(=O)R¹², -C(=S)R¹², an amino acid residue linked through a carboxyl group thereof, or R⁷ and R⁸ are taken together with the nitrogen to form a heterocycle;

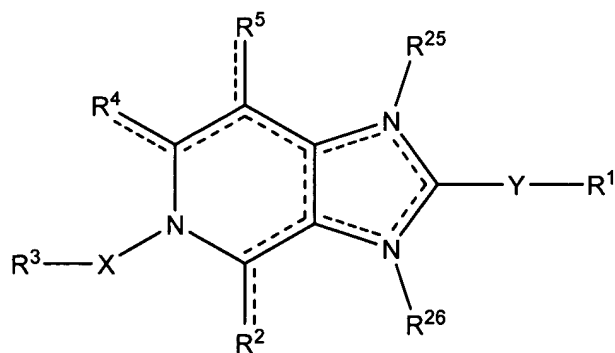
- R^9 and R^{18} are independently selected from the group consisting of hydrogen, -OH, C_{1-18} alkyl, C_{2-18} alkenyl, C_{3-10} cycloalkyl, C_{4-10} cycloalkenyl, C_{1-18} alkoxy, $-NR^{15}R^{16}$, aryl, an amino acid residue linked through an amino group of the amino acid, $-CH_2OCH(=O)R^{9a}$, or $-CH_2OC(=O)OR^{9a}$ where R^{9a} is C_1-C_{12} alkyl, C_6-C_{20} aryl, C_6-C_{20} alkylaryl or C_6-C_{20} aralkyl;
- R^{10} and R^{11} are independently selected from the group consisting of hydrogen, C_{1-18} alkyl, C_{2-18} alkenyl, C_{3-10} cycloalkyl, C_{4-10} cycloalkenyl, aryl, $-C(=O)R^{12}$, heterocycle, or an amino acid residue;
- R^{12} is selected from the group consisting of hydrogen, C_{1-18} alkyl, C_{2-18} alkenyl, aryl, C_{3-10} cycloalkyl, C_{4-10} cycloalkenyl, or an amino acid residue;
- R^{15} and R^{16} are independently selected from the group consisting of hydrogen, C_{1-18} alkyl, C_{2-18} alkenyl, C_{2-18} alkynyl, aryl, C_{3-10} cycloalkyl, C_{4-10} cycloalkenyl, or an amino acid residue;
- each R^{17} is independently selected from the group consisting of C_{1-18} alkylsulfoxide, C_{1-18} alkylsulfone, C_{2-18} halogenated alkenyl, C_{2-18} halogenated alkynyl, C_{2-18} halogenated alkoxy, C_{1-18} halogenated alkylthio, CO_2H , CO_2R^{18} , arylsulfoxide, arylsulfone, arylsulfonamide, where each of said arylsulfoxide, arylsulfone, arylsulfonamide is optionally substituted with one or more R^{19} ;
- each R^{19} is independently selected from the group consisting of hydrogen, C_{1-18} alkyl, C_{2-18} alkenyl, C_{2-18} alkynyl, C_{1-18} alkoxy, C_{2-18} alkenyloxy, C_{2-18} alkynyloxy, C_{1-18} alkylthio, C_{3-10} cycloalkyl, C_{4-10} cycloalkenyl, C_{4-10} cycloalkynyl, halogen, -OH, -CN, cyanoalkyl, $-NO_2$, $-NR^{20}R^{21}$, C_{1-18} haloalkyl, C_{1-18} haloalkyloxy, $-C(=O)R^{18}$, $-C(=O)OR^{18}$, $-OalkenylC(=O)OR^{18}$, $-OalkylC(=O)NR^{20}R^{21}$, $-OalkylOC(=O)R^{18}$, $-C(=S)R^{18}$, SH, $-C(=O)N(C_{1-6} alkyl)$, $-N(H)S(O)(O)(C_{1-6} alkyl)$, aryl, heterocycle, C_{1-18} alkylsulfone, arylsulfoxide, arylsulfonamide, aryl(C_{1-18})alkyloxy, aryloxy, aryl(C_{1-18} alkyl)oxy, arylthio, aryl(C_{1-18})alkylthio or aryl(C_{1-18})alkyl, where each is optionally substituted with 1 or more =O, $-NR^{20}R^{21}$, -CN, C_{1-18} alkoxy, heterocycle, C_{1-18}

haloalkyl, heterocycle alkyl, heterocycle connected to R¹⁷ by alkyl, alkoxyalkoxy or halogen;

- R²⁰ and R²¹ are independently selected from the group consisting of hydrogen, C₁₋₁₈ alkyl, C₂₋₁₈ alkenyl, C₂₋₁₈ alkynyl, aryl, C₃₋₁₀ cycloalkyl, C₄₋₁₀ cycloalkenyl, -C(=O)R¹², or -C(=S)R¹²;
- R²⁵ and R²⁶ are not present, or are independently selected from the group consisting of hydrogen, C₁₋₁₈ alkyl, C₃₋₁₀ cycloalkyl, aryl and heterocycle, where each is optionally independently substituted with 1 to 4 of C₁₋₆ alkyl, C₁₋₆ alkoxy, halo, -CH₂OH, benzyloxy, and -OH; and
- R²⁷ is selected from the group consisting of hydrogen, C₁₋₁₈ alkyl, C₃₋₁₀ cycloalkyl, (C₃₋₁₀ cycloalkyl)-C₁₋₆ alkyl, aryl, and aryl(C₁₋₁₈)alkyl; and salts, tautomers, stereoisomers and solvates thereof.

71. (New) A compound according to claim 70, being selected from group consisting of examples 120, 288 and 292.

72. (New) A compound having the structural formula (A)



(A)

wherein:

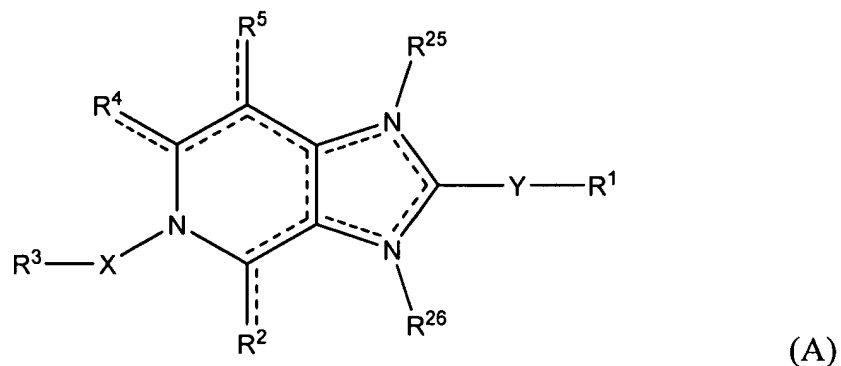
- the dotted lines represent an optional double bond, provided that no two double bonds are adjacent to one another, and that the dotted lines represent at least 3, optionally 4 double bonds;
- R^1 is selected from the group consisting of hydrogen, aryl, heterocycle, C_{1-10} alkoxy, C_{1-10} thioalkyl, C_{1-10} alkyl-amino, C_{1-10} dialkylamino, C_{3-10} cycloalkyl, C_{4-10} cycloalkenyl, and C_{4-10} cycloalkynyl, wherein each are optionally substituted with one or more R^6 ;
- Y is selected from a single bond, O, $S(O)_m$, NR^{11} , C_{1-10} alkylene, C_{2-10} alkenylene, or C_{2-10} alkynylene, wherein each alkylene, alkenylene or alkynylene optionally includes 1 to 3 heteroatoms selected from O, S or N; provided that YR^1 is not hydrogen or C_{1-6} alkyl;
- R^2 and R^4 are independently selected from the group consisting of hydrogen, C_{1-18} alkyl, C_{2-18} alkenyl, C_{2-18} alkynyl, C_{1-18} alkoxy, C_{1-18} alkylthio, halogen, -OH, -CN, -NO₂, -NR⁷R⁸, haloalkyloxy, haloalkyl, -C(=O)R⁹, -C(=S)R⁹, -SH, aryl, aryloxy, arylthio, arylalkyl, C_{1-18} hydroxyalkyl, C_{3-10} cycloalkyl, C_{3-10} cycloalkyloxy, C_{3-10} cycloalkylthio, C_{3-10} cycloalkenyl, C_{7-10} cycloalkynyl, or heterocycle, provided that when one of R^{25} or R^{26} is present, then either R^2 or R^4 is selected from the group consisting of (=O), (=S), and =NR²⁷;
- X is selected from the group consisting of C_{1-10} alkylene, C_{2-10} alkenylene or C_{2-10} alkynylene, where each optionally includes one or more heteroatoms selected from the group consisting of O, S, or N, provided any such heteroatom is not adjacent to the N in the imidazopyridyl ring;
- m is any integer from 0 to 2;
- R^3 is selected from the group consisting of aryl, aryloxy, arylthio, cycloalkyl, cycloalkenyl, cycloalkynyl, aryl-N(R^{10})-, or heterocycle, where R^3 is substituted with one or more R^{17} , and provided that for cycloalkenyl the double bond is not adjacent to a nitrogen;

- R^5 is selected from the group consisting of hydrogen, C_{1-18} alkyl, C_{2-18} alkenyl, C_{2-18} alkynyl, C_{1-18} alkoxy, C_{1-18} alkylthio, halogen, -OH, -CN, -NO₂, -NR⁷R⁸, haloalkyloxy, haloalkyl, -C(=O)R⁹, -C(=O)OR⁹, -C(=S)R⁹, SH, aryl, aryloxy, arylthio, arylalkyl, C_{1-18} hydroxyalkyl, C_{3-10} cycloalkyl, C_{3-10} cycloalkyloxy, C_{3-10} cycloalkylthio, C_{3-10} cycloalkenyl, C_{7-10} cycloalkynyl, or heterocycle;
- each R^6 is independently selected from the group consisting of hydrogen, C_{1-18} alkyl, C_{2-18} alkenyl, C_{2-18} alkynyl, C_{1-18} alkoxy, C_{1-18} alkylthio, C_{1-18} alkylsulfoxide, C_{1-18} alkylsulfone, C_{1-18} halo-alkyl, C_{2-18} halo-alkenyl, C_{2-18} halo-alkynyl, C_{1-18} halo-alkoxy, C_{1-18} halo-alkylthio, C_{3-10} cycloalkyl, C_{3-10} cycloalkenyl, C_{7-10} cycloalkynyl, halogen, -OH, -CN, cyanoalkyl, -CO₂R¹⁸, -NO₂, -NR⁷R⁸, C_{1-18} haloalkyl, -C(=O)R¹⁸, -C(=S)R¹⁸, -SH, aryl, aryloxy, arylthio, arylsulfoxide, arylsulfone, arylsulfonamide, aryl(C_{1-18})alkyl, aryl(C_{1-18})alkyloxy, aryl(C_{1-18})alkylthio, heterocycle and C_{1-18} hydroxyalkyl, where each is optionally substituted with one or more R^{19} ;
- R^7 and R^8 are independently selected from the group consisting of hydrogen, C_{1-18} alkyl, C_{1-18} alkenyl, aryl, C_{3-10} cycloalkyl, C_{4-10} cycloalkenyl, heterocycle, -C(=O)R¹², -C(=S)R¹², an amino acid residue linked through a carboxyl group thereof, or R^7 and R^8 are taken together with the nitrogen to form a heterocycle;
- R^9 and R^{18} are independently selected from the group consisting of hydrogen, -OH, C_{1-18} alkyl, C_{2-18} alkenyl, C_{3-10} cycloalkyl, C_{4-10} cycloalkenyl, C_{1-18} alkoxy, -NR¹⁵R¹⁶, aryl, an amino acid residue linked through an amino group of the amino acid, -CH₂OCH(=O)R^{9a}, or -CH₂OC(=O)OR^{9a} where R^{9a} is C_1 - C_{12} alkyl, C_6 - C_{20} aryl, C_6 - C_{20} alkylaryl or C_6 - C_{20} aralkyl;
- R^{10} and R^{11} are independently selected from the group consisting of hydrogen, C_{1-18} alkyl, C_{2-18} alkenyl, C_{3-10} cycloalkyl, C_{4-10} cycloalkenyl, aryl, -C(=O)R¹², heterocycle, or an amino acid residue;
- R^{12} is selected from the group consisting of hydrogen, C_{1-18} alkyl, C_{2-18} alkenyl, aryl, C_{3-10} cycloalkyl, C_{4-10} cycloalkenyl, or an amino acid residue;

- R^{15} and R^{16} are independently selected from the group consisting of hydrogen, C_{1-18} alkyl, C_{2-18} alkenyl, C_{2-18} alkynyl, aryl, C_{3-10} cycloalkyl, C_{4-10} cycloalkenyl, or an amino acid residue;
- each R^{17} is independently MQ- wherein Q is a bond or a linking group connecting M to R^3 and having 1 to 10 atoms, wherein M is selected from the group consisting of arylsulfoxide, arylsulfone and arylsulfonamide, and wherein each of said arylsulfoxide, arylsulfone or arylsulfonamide is optionally substituted with one or more R^{19} ;
- each R^{19} is independently selected from the group consisting of hydrogen, C_{1-18} alkyl, C_{2-18} alkenyl, C_{2-18} alkynyl, C_{1-18} alkoxy, C_{2-18} alkenyloxy, C_{2-18} alkynyloxy, C_{1-18} alkylthio, C_{3-10} cycloalkyl, C_{4-10} cycloalkenyl, C_{4-10} cycloalkynyl, halogen, -OH, -CN, cyanoalkyl, -NO₂, -NR²⁰R²¹, C_{1-18} haloalkyl, C_{1-18} haloalkyloxy, -C(=O)R¹⁸, -C(=O)OR¹⁸, -OalkenylC(=O)OR¹⁸, -OalkylC(=O)NR²⁰R²¹, -OalkylOC(=O)R¹⁸, -C(=S)R¹⁸, -SH, -C(=O)N(C₁₋₆ alkyl), -N(H)S(O)(O)(C₁₋₆ alkyl), aryl, heterocycle, C_{1-18} alkylsulfone, arylsulfoxide, arylsulfonamide, aryl(C_{1-18})alkyloxy, aryloxy, aryl(C_{1-18})alkylthio, arylthio, aryl(C_{1-18})alkylthio or aryl(C_{1-18})alkyl, where each is optionally substituted with 1 or more =O, -NR²⁰R²¹, -CN, C_{1-18} alkoxy, heterocycle, C_{1-18} haloalkyl, heterocycle alkyl, heterocycle connected to R^{17} by alkyl, alkoxyalkoxy or halogen;
- R^{20} and R^{21} are independently selected from the group consisting of hydrogen, C_{1-18} alkyl, C_{2-18} alkenyl, C_{2-18} alkynyl, aryl, C_{3-10} cycloalkyl, C_{4-10} cycloalkenyl, -C(=O)R¹², or -C(=S)R¹²;
- R^{25} and R^{26} are not present, or are independently selected from the group consisting of hydrogen, C_{1-18} alkyl, C_{3-10} cycloalkyl, aryl and heterocycle, where each is optionally independently substituted with 1 to 4 of C_{1-6} alkyl, C_{1-6} alkoxy, halo, -CH₂OH, benzyloxy, and -OH; and

- R^{27} is selected from the group consisting of hydrogen, C_{1-18} alkyl, C_{3-10} cycloalkyl, (C_{3-10} cycloalkyl)- C_{1-6} alkyl, aryl, and aryl(C_{1-18})alkyl; and salts, tautomers, stereoisomers and solvates thereof.

73. (New) A compound having the structural formula (A)



wherein:

- the dotted lines represent an optional double bond, provided that no two double bonds are adjacent to one another, and that the dotted lines represent at least 3, optionally 4 double bonds;
- R^1 is selected from the group consisting of hydrogen, aryl, heterocycle, C_{1-10} alkoxy, C_{1-10} thioalkyl, C_{1-10} alkyl-amino, C_{1-10} dialkylamino, C_{3-10} cycloalkyl, C_{4-10} cycloalkenyl, and C_{4-10} cycloalkynyl, wherein each are optionally substituted with one or more R^6 ;
- Y is selected from a single bond, O, $S(O)_m$, NR^{11} , C_{1-10} alkylene, C_{2-10} alkenylene, or C_{2-10} alkynylene, wherein each alkylene, alkenylene or alkynylene optionally includes 1 to 3 heteroatoms selected from O, S or N; provided that YR^1 is not hydrogen or C_{1-6} alkyl;
- R^2 and R^4 are independently selected from the group consisting of hydrogen, C_{1-18} alkyl, C_{2-18} alkenyl, C_{2-18} alkynyl, C_{1-18} alkoxy, C_{1-18} alkylthio, halogen, -OH, -CN, -NO₂, -NR⁷R⁸, haloalkyloxy, haloalkyl, -C(=O)R⁹, -C(=S)R⁹, -SH, aryl, aryloxy,

arylthio, arylalkyl, C₁₋₁₈ hydroxyalkyl, C₃₋₁₀ cycloalkyl, C₃₋₁₀ cycloalkyloxy, C₃₋₁₀ cycloalkylthio, C₃₋₁₀ cycloalkenyl, C₇₋₁₀ cycloalkynyl, or heterocycle, provided that when one of R²⁵ or R²⁶ is present, then either R² or R⁴ is selected from the group consisting of (=O), (=S), and =NR²⁷;

- X is selected from the group consisting of C₁-C₁₀ alkylene, C₂₋₁₀ alkenylene or C₂₋₁₀ alkynylene, where each optionally includes one or more heteroatoms selected from the group consisting of O, S, or N, provided any such heteroatom is not adjacent to the N in the imidazopyridyl ring;
- m is any integer from 0 to 2;
- R³ is selected from the group consisting of aryl, aryloxy, arylthio, cycloalkyl, cycloalkenyl, cycloalkynyl, aryl-N(R¹⁰)-, or heterocycle, where R³ is substituted with 1 or more R¹⁷, provided that for cycloalkenyl the double bond is not adjacent to a nitrogen;
- R⁵ is selected from the group consisting of hydrogen, C₁₋₁₈ alkyl, C₂₋₁₈ alkenyl, C₂₋₁₈ alkynyl, C₁₋₁₈ alkoxy, C₁₋₁₈ alkylthio, halogen, -OH, -CN, -NO₂, -NR⁷R⁸, haloalkyloxy, haloalkyl, -C(=O)R⁹, -C(=O)OR⁹, -C(=S)R⁹, -SH, aryl, aryloxy, arylthio, arylalkyl, C₁₋₁₈ hydroxyalkyl, C₃₋₁₀ cycloalkyl, C₃₋₁₀ cycloalkyloxy, C₃₋₁₀ cycloalkylthio, C₃₋₁₀ cycloalkenyl, C₇₋₁₀ cycloalkynyl, or heterocycle;
- each R⁶ is independently selected from the group consisting of hydrogen, C₁₋₁₈ alkyl, C₂₋₁₈ alkenyl, C₂₋₁₈ alkynyl, C₁₋₁₈ alkoxy, C₁₋₁₈ alkylthio, C₁₋₁₈ alkylsulfoxide, C₁₋₁₈ alkylsulfone, C₁₋₁₈ halo-alkyl, C₂₋₁₈ halo-alkenyl, C₂₋₁₈ halo-alkynyl, C₁₋₁₈ halo-alkoxy, C₁₋₁₈ halo-alkylthio, C₃₋₁₀ cycloalkyl, C₃₋₁₀ cycloalkenyl, C₇₋₁₀ cycloalkynyl, halogen, -OH, -CN, cyanoalkyl, -CO₂R¹⁸, -NO₂, -NR⁷R⁸, C₁₋₁₈ haloalkyl, -C(=O)R¹⁸, -C(=S)R¹⁸, -SH, aryl, aryloxy, arylthio, arylsulfoxide, arylsulfone, arylsulfonamide, aryl(C₁₋₁₈)alkyl, aryl(C₁₋₁₈)alkyloxy, aryl(C₁₋₁₈)alkylthio, heterocycle and C₁₋₁₈ hydroxyalkyl, where each is optionally substituted with one or more R¹⁹;

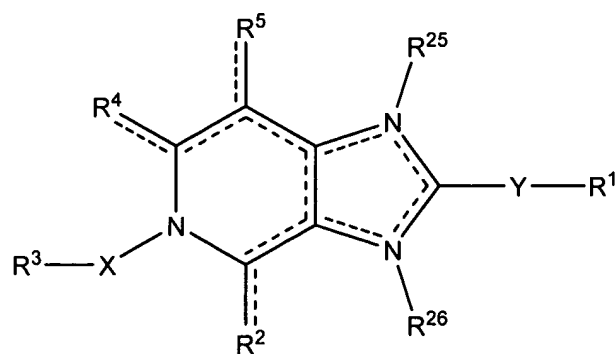
- R^7 and R^8 are independently selected from the group consisting of hydrogen, C_{1-18} alkyl, C_{1-18} alkenyl, aryl, C_{3-10} cycloalkyl, C_{4-10} cycloalkenyl, heterocycle, $-C(=O)R^{12}$; $-C(=S)R^{12}$, an amino acid residue linked through a carboxyl group thereof, or R^7 and R^8 are taken together with the nitrogen to form a heterocycle;
- R^9 and R^{18} are independently selected from the group consisting of hydrogen, $-OH$, C_{1-18} alkyl, C_{2-18} alkenyl, C_{3-10} cycloalkyl, C_{4-10} cycloalkenyl, C_{1-18} alkoxy, $-NR^{15}R^{16}$, aryl, an amino acid residue linked through an amino group of the amino acid, $-CH_2OCH(=O)R^{9a}$, or $-CH_2OC(=O)OR^{9a}$ where R^{9a} is C_1 - C_{12} alkyl, C_6 - C_{20} aryl, C_6 - C_{20} alkylaryl or C_6 - C_{20} aralkyl;
- R^{10} and R^{11} are independently selected from the group consisting of hydrogen, C_{1-18} alkyl, C_{2-18} alkenyl, C_{3-10} cycloalkyl, C_{4-10} cycloalkenyl, aryl, $-C(=O)R^{12}$, heterocycle, or an amino acid residue;
- R^{12} is selected from the group consisting of hydrogen, C_{1-18} alkyl, C_{2-18} alkenyl, aryl, C_{3-10} cycloalkyl, C_{4-10} cycloalkenyl, or an amino acid residue;
- R^{15} and R^{16} are independently selected from the group consisting of hydrogen, C_{1-18} alkyl, C_{2-18} alkenyl, C_{2-18} alkynyl, aryl, C_{3-10} cycloalkyl, C_{4-10} cycloalkenyl, or an amino acid residue;
- each R^{17} is independently MQ- wherein M is a 4-, 7-, 8- or 9-membered heterocycle optionally substituted with 1 or more R^{19} , and Q is a bond or a linking group connecting M to R^3 that has 1 to 10 atoms and is optionally substituted with one or more R^{19} ;
- each R^{19} is independently selected from the group consisting of hydrogen, C_{1-18} alkyl, C_{2-18} alkenyl, C_{2-18} alkynyl, C_{1-18} alkoxy, C_{2-18} alkenyloxy, C_{2-18} alkynyloxy, C_{1-18} alkylthio, C_{3-10} cycloalkyl, C_{4-10} cycloalkenyl, C_{4-10} cycloalkynyl, halogen, $-OH$, $-CN$, cyanoalkyl, $-NO_2$, $-NR^{20}R^{21}$, C_{1-18} haloalkyl, C_{1-18} haloalkyloxy, $-C(=O)R^{18}$, $-C(=O)OR^{18}$, $-OalkenylC(=O)OR^{18}$, $-OalkylC(=O)NR^{20}R^{21}$, $-OalkylOC(=O)R^{18}$, $-C(=S)R^{18}$, $-SH$, $-C(=O)N(C_{1-6} alkyl)$, $-N(H)S(O)(O)(C_{1-6} alkyl)$, aryl, heterocycle, C_{1-18}

₁₈ alkylsulfone, arylsulfoxide, arylsulfonamide, aryl(C₁₋₁₈)alkyloxy, aryloxy, aryl(C₁₋₁₈alkyl)oxy, arylthio, aryl(C₁₋₁₈)alkylthio or aryl(C₁₋₁₈)alkyl, where each is optionally substituted with 1 or more =O, -NR²⁰R²¹, -CN, C₁₋₁₈ alkoxy, heterocycle, C₁₋₁₈ haloalkyl, heterocycle alkyl, heterocycle connected to R¹⁷ by alkyl, alkoxyalkoxy or halogen;

- R²⁰ and R²¹ are independently selected from the group consisting of hydrogen, C₁₋₁₈ alkyl, C₂₋₁₈ alkenyl, C₂₋₁₈ alkynyl, aryl, C₃₋₁₀ cycloalkyl, C₄₋₁₀ cycloalkenyl, -C(=O)R¹², or -C(=S)R¹²;
- R²⁵ and R²⁶ are not present, or are independently selected from the group consisting of hydrogen, C₁₋₁₈ alkyl, C₃₋₁₀ cycloalkyl, aryl and heterocycle, where each is optionally independently substituted with 1 to 4 of C₁₋₆ alkyl, C₁₋₆ alkoxy, halo, -CH₂OH, benzyloxy, and -OH; and
- R²⁷ is selected from the group consisting of hydrogen, C₁₋₁₈ alkyl, C₃₋₁₀ cycloalkyl, (C₃₋₁₀ cycloalkyl)-C₁₋₆ alkyl, aryl, and aryl(C₁₋₁₈)alkyl; and salts, tautomers, stereoisomers and solvates thereof.

74. (New) A compound according to claim 73, being selected from the group consisting of examples 102, 103, 106 and 315.

75. (New) A compound having the structural formula (A)



(A)

wherein:

- the dotted lines represent an optional double bond, provided that no two double bonds are adjacent to one another, and that the dotted lines represent at least 3, optionally 4 double bonds;
- R^1 is selected from the group consisting of hydrogen, aryl, heterocycle, C_{1-10} alkoxy, C_{1-10} thioalkyl, C_{1-10} alkyl-amino, C_{1-10} dialkylamino, C_{3-10} cycloalkyl, C_{4-10} cycloalkenyl, and C_{4-10} cycloalkynyl, wherein each are optionally substituted with one or more R^6 ;
- Y is selected from a single bond, O, $S(O)_m$, NR^{11} , C_{1-10} alkylene, C_{2-10} alkenylene, or C_{2-10} alkynylene, wherein each alkylene, alkenylene or alkynylene optionally includes 1 to 3 heteroatoms selected from O, S or N; provided that YR^1 is not hydrogen or C_{1-6} alkyl;
- R^2 and R^4 are independently selected from the group consisting of hydrogen, C_{1-18} alkyl, C_{2-18} alkenyl, C_{2-18} alkynyl, C_{1-18} alkoxy, C_{1-18} alkylthio, halogen, -OH, -CN, -NO₂, -NR⁷R⁸, haloalkyloxy, haloalkyl, -C(=O)R⁹, -C(=S)R⁹, -SH, aryl, aryloxy, arylthio, arylalkyl, C_{1-18} hydroxyalkyl, C_{3-10} cycloalkyl, C_{3-10} cycloalkyloxy, C_{3-10} cycloalkylthio, C_{3-10} cycloalkenyl, C_{7-10} cycloalkynyl, or heterocycle, provided that when one of R^{25} or R^{26} is present, then either R^2 or R^4 is selected from the group consisting of (=O), (=S), and =NR²⁷;
- X is selected from the group consisting of C_{1-10} alkylene, C_{2-10} alkenylene or C_{2-10} alkynylene, where each optionally includes one or more heteroatoms selected from the group consisting of O, S, or N, provided any such heteroatom is not adjacent to the N in the imidazopyridyl ring;
- m is any integer from 0 to 2;
- R^3 is a 4-, 7-, 8- or 9-membered heterocycle optionally substituted with one or more R^{17} ;
- R^5 is selected from the group consisting of hydrogen, C_{1-18} alkyl, C_{2-18} alkenyl, C_{2-18} alkynyl, C_{1-18} alkoxy, C_{1-18} alkylthio, halogen, -OH, -CN, -NO₂, -NR⁷R⁸, haloalkyloxy,

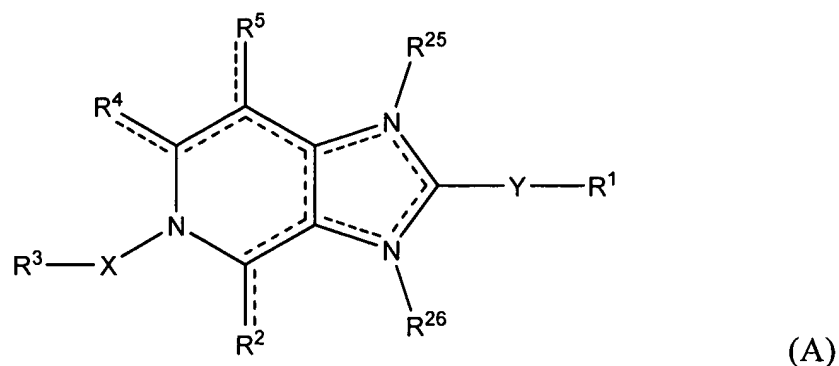
- haloalkyl, $-C(=O)R^9$, $-C(=O)OR^9$, $-C(=S)R^9$, $-SH$, aryl, aryloxy, arylthio, arylalkyl, C_{1-18} hydroxyalkyl, C_{3-10} cycloalkyl, C_{3-10} cycloalkyloxy, C_{3-10} cycloalkylthio, C_{3-10} cycloalkenyl, C_{7-10} cycloalkynyl, or heterocycle;
- each R^6 is independently selected from the group consisting of hydrogen, C_{1-18} alkyl, C_{2-18} alkenyl, C_{2-18} alkynyl, C_{1-18} alkoxy, C_{1-18} alkylthio, C_{1-18} alkylsulfoxide, C_{1-18} alkylsulfone, C_{1-18} halo-alkyl, C_{2-18} halo-alkenyl, C_{2-18} halo-alkynyl, C_{1-18} halo-alkoxy, C_{1-18} halo-alkylthio, C_{3-10} cycloalkyl, C_{3-10} cycloalkenyl, C_{7-10} cycloalkynyl, halogen, $-OH$, $-CN$, cyanoalkyl, $-CO_2R^{18}$, $-NO_2$, $-NR^7R^8$, C_{1-18} haloalkyl, $-C(=O)R^{18}$, $-C(=S)R^{18}$, $-SH$, aryl, aryloxy, arylthio, arylsulfoxide, arylsulfone, arylsulfonamide, aryl(C_{1-18})alkyl, aryl(C_{1-18})alkyloxy, aryl(C_{1-18})alkylthio, heterocycle and C_{1-18} hydroxyalkyl, where each is optionally substituted with one or more R^{19} ;
 - R^7 and R^8 are independently selected from the group consisting of hydrogen, C_{1-18} alkyl, C_{1-18} alkenyl, aryl, C_{3-10} cycloalkyl, C_{4-10} cycloalkenyl, heterocycle, $-C(=O)R^{12}$, $-C(=S)R^{12}$, an amino acid residue linked through a carboxyl group thereof, or R^7 and R^8 are taken together with the nitrogen to form a heterocycle;
 - R^9 and R^{18} are independently selected from the group consisting of hydrogen, OH , C_{1-18} alkyl, C_{2-18} alkenyl, C_{3-10} cycloalkyl, C_{4-10} cycloalkenyl, C_{1-18} alkoxy, $-NR^{15}R^{16}$, aryl, an amino acid residue linked through an amino group of the amino acid, $-CH_2OCH(=O)R^{9a}$, or $-CH_2OC(=O)OR^{9a}$ where R^{9a} is C_1-C_{12} alkyl, C_6-C_{20} aryl, C_6-C_{20} alkylaryl or C_6-C_{20} aralkyl;
 - R^{10} and R^{11} are independently selected from the group consisting of hydrogen, C_{1-18} alkyl, C_{2-18} alkenyl, C_{3-10} cycloalkyl, C_{4-10} cycloalkenyl, aryl, $-C(=O)R^{12}$, heterocycle, or an amino acid residue;
 - R^{12} is selected from the group consisting of hydrogen, C_{1-18} alkyl, C_{2-18} alkenyl, aryl, C_{3-10} cycloalkyl, C_{4-10} cycloalkenyl, or an amino acid residue;

- R^{15} and R^{16} are independently selected from the group consisting of hydrogen, C_{1-18} alkyl, C_{2-18} alkenyl, C_{2-18} alkynyl, aryl, C_{3-10} cycloalkyl, C_{4-10} cycloalkenyl, or an amino acid residue;
- each R^{17} is independently selected from the group consisting of hydrogen, C_{1-18} alkyl, C_{2-18} alkenyl, C_{2-18} alkynyl, C_{1-18} alkoxy, C_{1-18} alkylthio, C_{1-18} alkylsulfoxide, C_{1-18} alkylsulfone, C_{1-18} halogenated alkyl, C_{2-18} halogenated alkenyl, C_{2-18} halogenated alkynyl, C_{1-18} halogenated alkoxy, C_{1-18} halogenated alkylthio, C_{3-10} cycloalkyl, C_{3-10} cycloalkenyl, C_{7-10} cycloalkynyl, halogen, -OH, -CN, -CO₂H, -CO₂R¹⁸, -NO₂, -NR⁷R⁸, haloalkyl, -C(=O)R¹⁸, -C(=S)R¹⁸, -SH, aryl, aryloxy, arylthio, arylsulfoxide, arylsulfone, arylsulfonamide, arylalkyl, arylalkyloxy, arylalkylthio, heterocycle, C_{1-18} hydroxyalkyl, where each of said aryl, aryloxy, arylthio, arylsulfoxide, arylsulfone, arylsulfonamide, arylalkyl, arylalkyloxy, arylalkylthio, heterocycle or C_{1-18} hydroxyalkyl is optionally substituted with one or more R^{19} ;
- each R^{19} is independently selected from the group consisting of hydrogen, C_{1-18} alkyl, C_{2-18} alkenyl, C_{2-18} alkynyl, C_{1-18} alkoxy, C_{2-18} alkenyloxy, C_{2-18} alkynyloxy, C_{1-18} alkylthio, C_{3-10} cycloalkyl, C_{4-10} cycloalkenyl, C_{4-10} cycloalkynyl, halogen, -OH, -CN, cyanoalkyl, -NO₂, -NR²⁰R²¹, C_{1-18} haloalkyl, C_{1-18} haloalkyloxy, -C(=O)R¹⁸, -C(=O)OR¹⁸, -OalkenylC(=O)OR¹⁸, -OalkylC(=O)NR²⁰R²¹, -OalkylOC(=O)R¹⁸, -C(=S)R¹⁸, -SH, -C(=O)N(C_{1-6} alkyl), -N(H)S(O)(O)(C_{1-6} alkyl), aryl, heterocycle, C_{1-18} alkylsulfone, arylsulfoxide, arylsulfonamide, aryl(C_{1-18})alkyloxy, aryloxy, aryl(C_{1-18} alkyl)oxy, arylthio, aryl(C_{1-18})alkylthio or aryl(C_{1-18})alkyl, where each is optionally substituted with 1 or more =O, -NR²⁰R²¹, -CN, C_{1-18} alkoxy, heterocycle, C_{1-18} haloalkyl, heterocycle alkyl, heterocycle connected to R^{17} by alkyl, alkoxyalkoxy or halogen;
- R^{20} and R^{21} are independently selected from the group consisting of hydrogen, C_{1-18} alkyl, C_{2-18} alkenyl, C_{2-18} alkynyl, aryl, C_{3-10} cycloalkyl, C_{4-10} cycloalkenyl, -C(=O)R¹², or -C(=S)R¹²;

- R^{25} and R^{26} are not present, or are independently selected from the group consisting of hydrogen, C_{1-18} alkyl, C_{3-10} cycloalkyl, aryl and heterocycle, where each is optionally independently substituted with 1 to 4 of C_{1-6} alkyl, C_{1-6} alkoxy, halo, $-CH_2OH$, benzyloxy, and $-OH$; and
- R^{27} is selected from the group consisting of hydrogen, C_{1-18} alkyl, C_{3-10} cycloalkyl, (C_{3-10} cycloalkyl)- C_{1-6} alkyl, aryl, and aryl(C_{1-18})alkyl; and salts, tautomers, stereoisomers and solvates thereof.

76. (New) A compound according to claim 75, being selected from the group consisting of examples 16, 30, 42 and 318.

77. (New) A compound having the structural formula (A)



wherein:

- the dotted lines represent an optional double bond, provided that no two double bonds are adjacent to one another, and that the dotted lines represent at least 3, optionally 4 double bonds;
- R^1 is selected from the group consisting of hydrogen, aryl, heterocycle, C_{1-10} alkoxy, C_{1-10} thioalkyl, C_{1-10} alkyl-amino, C_{1-10} dialkylamino, C_{3-10} cycloalkyl, C_{4-10} cycloalkenyl, and C_{4-10} cycloalkynyl, wherein each are optionally substituted with one or more R^6 ;

- Y is selected from a single bond, O, S(O)_m, NR¹¹, C₁₋₁₀ alkylene, C₂₋₁₀ alkenylene, or C₂₋₁₀ alkynylene, wherein each alkylene, alkenylene or alkynylene optionally includes 1 to 3 heteroatoms selected from O, S or N; provided that YR¹ is not hydrogen or C₁₋₆ alkyl;
- R² and R⁴ are independently selected from the group consisting of hydrogen, C₁₋₁₈ alkyl, C₂₋₁₈ alkenyl, C₂₋₁₈ alkynyl, C₁₋₁₈ alkoxy, C₁₋₁₈ alkylthio, halogen, -OH, -CN, -NO₂, -NR⁷R⁸, haloalkyloxy, haloalkyl, -C(=O)R⁹, -C(=S)R⁹, -SH, aryl, aryloxy, arylthio, arylalkyl, C₁₋₁₈ hydroxyalkyl, C₃₋₁₀ cycloalkyl, C₃₋₁₀ cycloalkyloxy, C₃₋₁₀ cycloalkylthio, C₃₋₁₀ cycloalkenyl, C₇₋₁₀ cycloalkynyl, or heterocycle, provided that when one of R²⁵ or R²⁶ is present, then either R² or R⁴ is selected from the group consisting of (=O), (=S), and =NR²⁷;
- X is selected from the group consisting of C₁₋₁₀ alkylene, C₂₋₁₀ alkenylene or C₂₋₁₀ alkynylene, where each optionally includes one or more heteroatoms selected from the group consisting of O, S, or N, provided any such heteroatom is not adjacent to the N in the imidazopyridyl ring;
- m is any integer from 0 to 2;
- R³ is a 4-, 7-, 8- or 9-membered heterocycle substituted with one or more R¹⁷;
- R⁵ is selected from the group consisting of hydrogen, C₁₋₁₈ alkyl, C₂₋₁₈ alkenyl, C₂₋₁₈ alkynyl, C₁₋₁₈ alkoxy, C₁₋₁₈ alkylthio, halogen, -OH, -CN, -NO₂, -NR⁷R⁸, haloalkyloxy, haloalkyl, -C(=O)R⁹, -C(=O)OR⁹, -C(=S)R⁹, -SH, aryl, aryloxy, arylthio, arylalkyl, C₁₋₁₈ hydroxyalkyl, C₃₋₁₀ cycloalkyl, C₃₋₁₀ cycloalkyloxy, C₃₋₁₀ cycloalkylthio, C₃₋₁₀ cycloalkenyl, C₇₋₁₀ cycloalkynyl, or heterocycle;
- each R⁶ is independently selected from the group consisting of hydrogen, C₁₋₁₈ alkyl, C₂₋₁₈ alkenyl, C₂₋₁₈ alkynyl, C₁₋₁₈ alkoxy, C₁₋₁₈ alkylthio, C₁₋₁₈ alkylsulfoxide, C₁₋₁₈ alkylsulfone, C₁₋₁₈ halo-alkyl, C₂₋₁₈ halo-alkenyl, C₂₋₁₈ halo-alkynyl, C₁₋₁₈ halo-alkoxy, C₁₋₁₈ halo-alkylthio, C₃₋₁₀ cycloalkyl, C₃₋₁₀ cycloalkenyl, C₇₋₁₀ cycloalkynyl, halogen, -OH, -CN, cyanoalkyl, -CO₂R¹⁸, -NO₂, -NR⁷R⁸, C₁₋₁₈ haloalkyl, -C(=O)R¹⁸, -C(=S)R¹⁸,

- SH, aryl, aryloxy, arylthio, arylsulfoxide, arylsulfone, arylsulfonamide, aryl(C₁₋₁₈)alkyl, aryl(C₁₋₁₈)alkyloxy, aryl(C₁₋₁₈)alkylthio, heterocycle and C₁₋₁₈ hydroxyalkyl, where each is optionally substituted with one or more R¹⁹;
- R⁷ and R⁸ are independently selected from the group consisting of hydrogen, C₁₋₁₈ alkyl, C₁₋₁₈ alkenyl, aryl, C₃₋₁₀ cycloalkyl, C₄₋₁₀ cycloalkenyl, heterocycle, -C(=O)R¹²; -C(=S)R¹², an amino acid residue linked through a carboxyl group thereof, or R⁷ and R⁸ are taken together with the nitrogen to form a heterocycle;
 - R⁹ and R¹⁸ are independently selected from the group consisting of hydrogen, -OH, C₁₋₁₈ alkyl, C₂₋₁₈ alkenyl, C₃₋₁₀ cycloalkyl, C₄₋₁₀ cycloalkenyl, C₁₋₁₈ alkoxy, -NR¹⁵R¹⁶, aryl, an amino acid residue linked through an amino group of the amino acid, -CH₂OCH(=O)R^{9a}, or -CH₂OC(=O)OR^{9a} where R^{9a} is C₁-C₁₂ alkyl, C₆-C₂₀ aryl, C₆-C₂₀ alkylaryl or C₆-C₂₀ aralkyl;
 - R¹⁰ and R¹¹ are independently selected from the group consisting of hydrogen, C₁₋₁₈ alkyl, C₂₋₁₈ alkenyl, C₃₋₁₀ cycloalkyl, C₄₋₁₀ cycloalkenyl, aryl, -C(=O)R¹², heterocycle, or an amino acid residue;
 - R¹² is selected from the group consisting of hydrogen, C₁₋₁₈ alkyl, C₂₋₁₈ alkenyl, aryl, C₃₋₁₀ cycloalkyl, C₄₋₁₀ cycloalkenyl, or an amino acid residue;
 - R¹⁵ and R¹⁶ are independently selected from the group consisting of hydrogen, C₁₋₁₈ alkyl, C₂₋₁₈ alkenyl, C₂₋₁₈ alkynyl, aryl, C₃₋₁₀ cycloalkyl, C₄₋₁₀ cycloalkenyl, or an amino acid residue;
 - each R¹⁷ is independently MQ- wherein M is a ring optionally substituted with one or more R¹⁹, and Q is a bond or a linking group connecting M to R³ that has 1 to 10 atoms and is optionally substituted with one or more R¹⁹;
 - each R¹⁹ is independently selected from the group consisting of hydrogen, C₁₋₁₈ alkyl, C₂₋₁₈ alkenyl, C₂₋₁₈ alkynyl, C₁₋₁₈ alkoxy, C₂₋₁₈ alkenyloxy, C₂₋₁₈ alkynyloxy, C₁₋₁₈ alkylthio, C₃₋₁₀ cycloalkyl, C₄₋₁₀ cycloalkenyl, C₄₋₁₀ cycloalkynyl, halogen, -OH, -CN, cyanoalkyl, -NO₂, -NR²⁰R²¹, C₁₋₁₈ haloalkyl, C₁₋₁₈ haloalkyloxy, -C(=O)R¹⁸,

- C(=O)OR¹⁸, -OalkenylC(=O)OR¹⁸, -OalkylC(=O)NR²⁰R²¹, -OalkylOC(=O)R¹⁸, -C(=S)R¹⁸, -SH, -C(=O)N(C₁₋₆ alkyl), -N(H)S(O)(O)(C₁₋₆ alkyl), aryl, heterocycle, C₁₋₁₈ alkylsulfone, arylsulfoxide, arylsulfonamide, aryl(C₁₋₁₈)alkyloxy, aryloxy, aryl(C₁₋₁₈)alkyl, arylthio, aryl(C₁₋₁₈)alkylthio or aryl(C₁₋₁₈)alkyl, where each is optionally substituted with 1 or more =O, -NR²⁰R²¹, -CN, C₁₋₁₈ alkoxy, heterocycle, C₁₋₁₈ haloalkyl, heterocycle alkyl, heterocycle connected to R¹⁷ by alkyl, alkoxyalkoxy or halogen;
- R²⁰ and R²¹ are independently selected from the group consisting of hydrogen, C₁₋₁₈ alkyl, C₂₋₁₈ alkenyl, C₂₋₁₈ alkynyl, aryl, C₃₋₁₀ cycloalkyl, C₄₋₁₀ cycloalkenyl, -C(=O)R¹², or -C(=S)R¹²;
 - R²⁵ and R²⁶ are not present, or are independently selected from the group consisting of hydrogen, C₁₋₁₈ alkyl, C₃₋₁₀ cycloalkyl, aryl and heterocycle, where each is optionally independently substituted with 1 to 4 of C₁₋₆ alkyl, C₁₋₆ alkoxy, halo, -CH₂OH, benzyloxy, and -OH; and
 - R²⁷ is selected from the group consisting of hydrogen, C₁₋₁₈ alkyl, C₃₋₁₀ cycloalkyl, (C₃₋₁₀ cycloalkyl)-C₁₋₆ alkyl, aryl, and aryl(C₁₋₁₈)alkyl; and salts, tautomers, stereoisomers and solvates thereof.

78. (New) A compound according to claim 77, being selected from the group consisting of examples 2 to 15, 17 to 29, 31 to 41, 43 to 101, 104, 105, 107 to 314, 316, 317, and 319 to 379.

79. (New) A compound according to claim 70, wherein R³ is isoxazolyl substituted with one R¹⁷.

80. (New) A compound according to claim 72, wherein R³ is isoxazolyl substituted with one R¹⁷.

81. (New) A compound according to claim 73, wherein R³ is isoxazolyl substituted with one R¹⁷.

82. (New) A compound according to claim 75, wherein R³ is isoxazolyl substituted with one R¹⁷.

83. (New) A compound according to claim 77, wherein R³ is isoxazolyl substituted with one R¹⁷.

84. (New) A pharmaceutical composition comprising a pharmaceutically acceptable excipient and a compound according to claim 70.

85. (New) A pharmaceutical composition comprising a pharmaceutically acceptable excipient and a compound according to claim 72.

86. (New) A pharmaceutical composition comprising a pharmaceutically acceptable excipient and a compound according to claim 73.

87. (New) A pharmaceutical composition comprising a pharmaceutically acceptable excipient and a compound according to claim 75.

88. (New) A pharmaceutical composition comprising a pharmaceutically acceptable excipient and a compound according to claim 77.